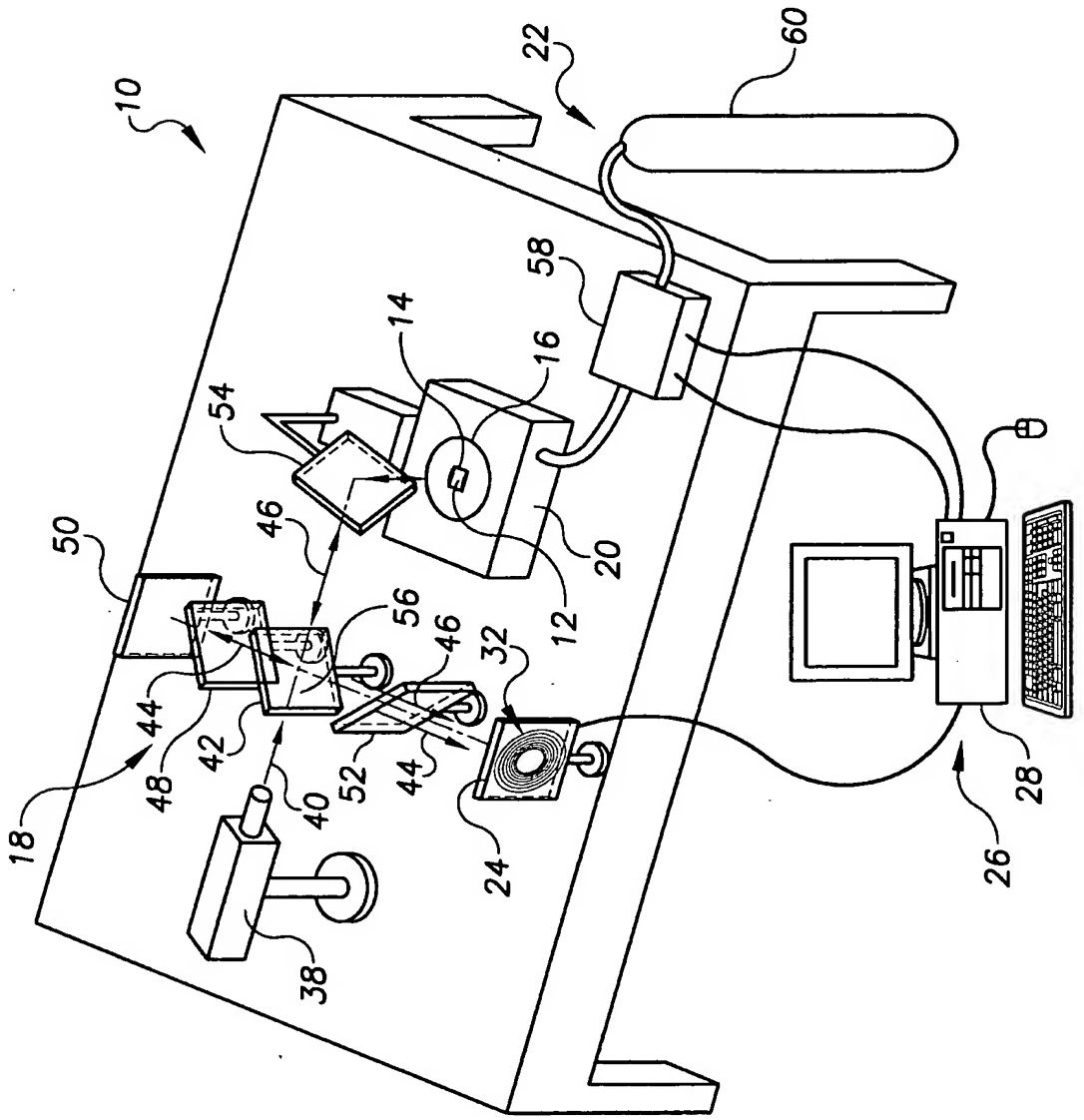

10
22
60
58
14
16
54
46
50
20
12
56
46
32
44
42
48
40
52
44
18
24
38
28
26

FIG. 1

FIG. 2

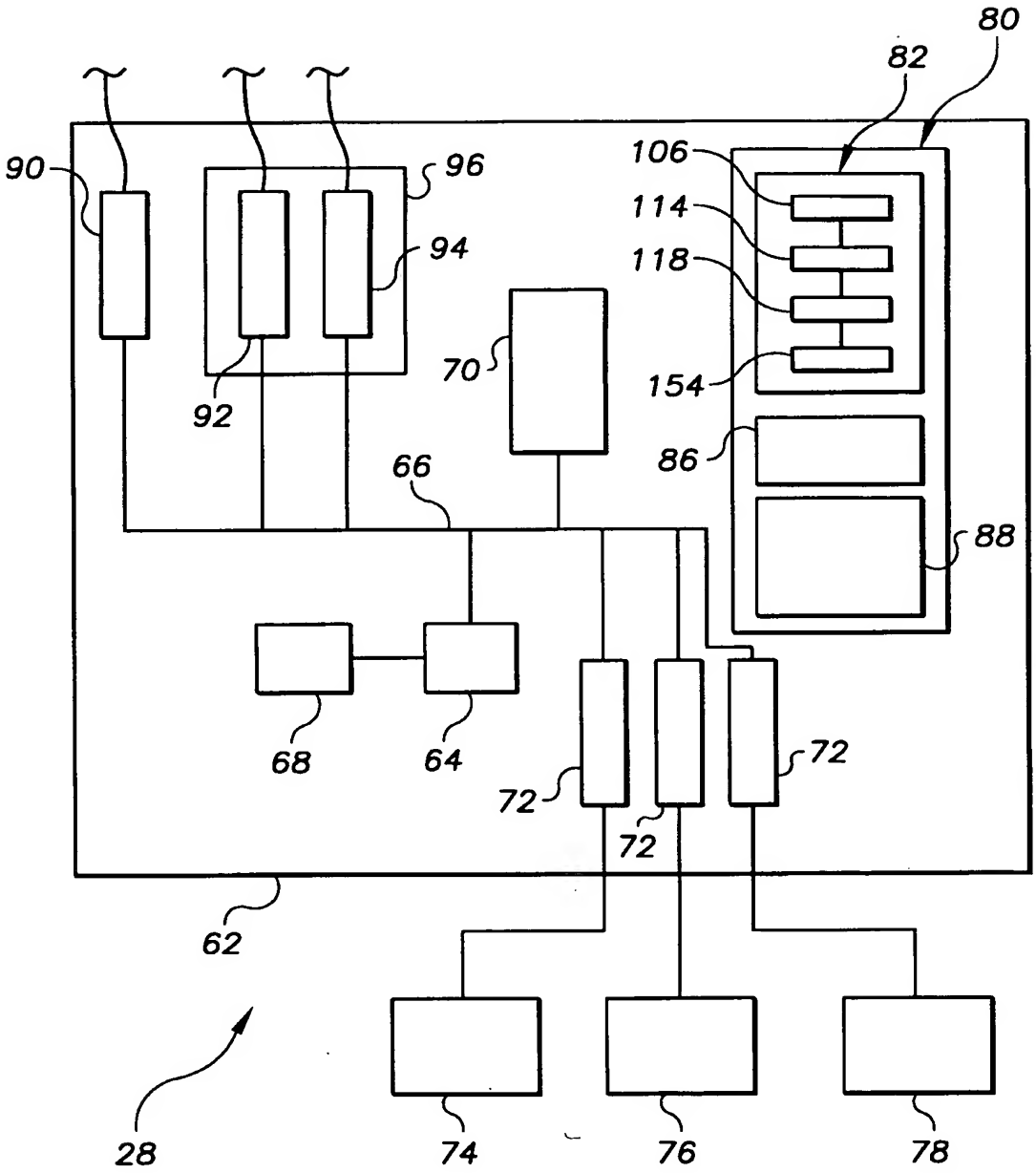

80
82
90
96
94
106
114
118
70
154
92
66
86
88
68
64
72
72
72
62
28
74
76
78

FIG.3-1

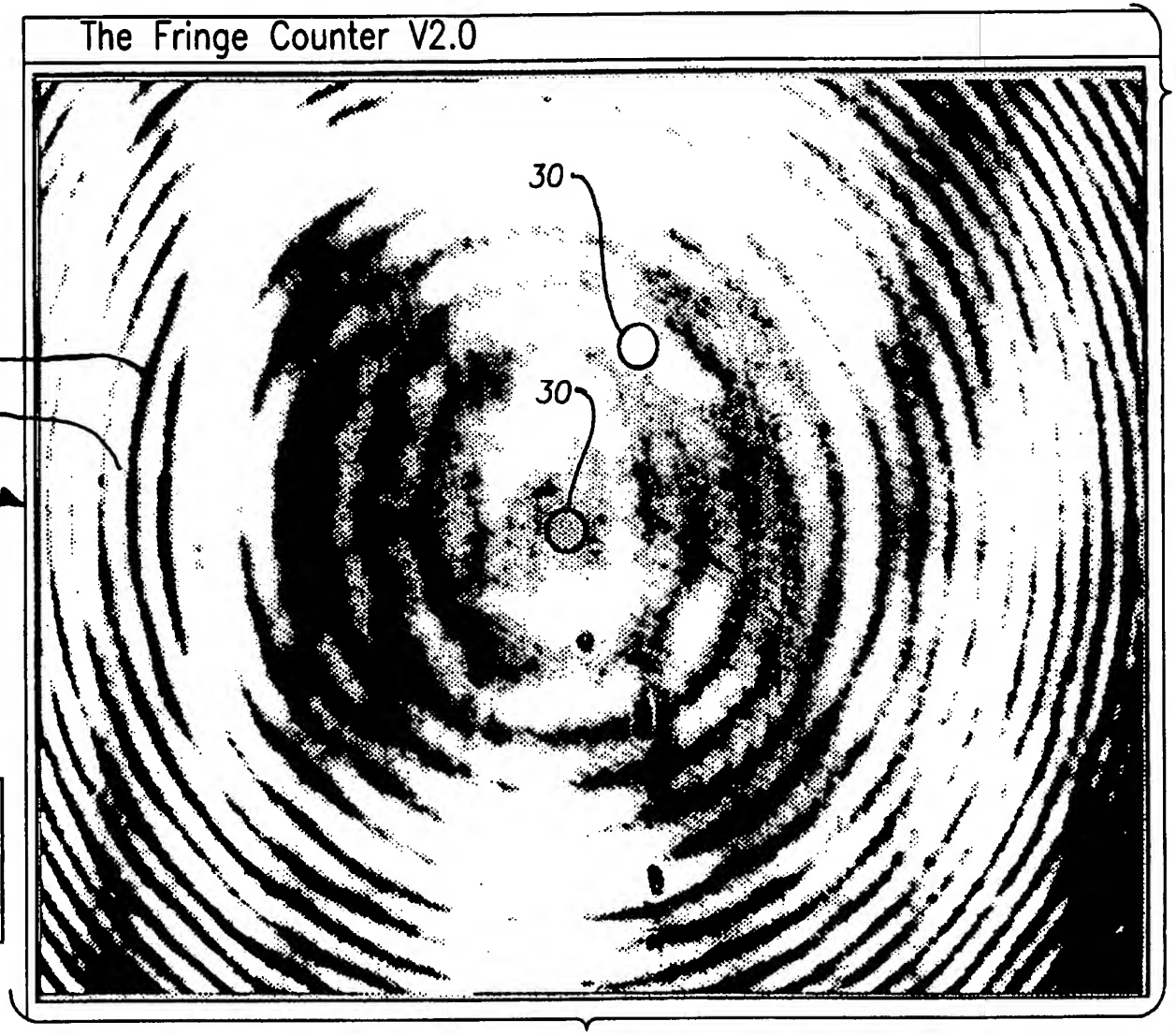
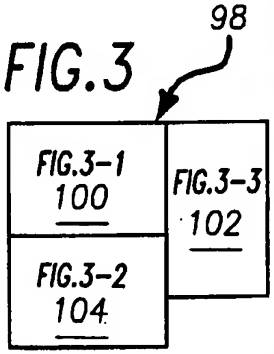

The Fringe Counter V2.0
30
30
36
34
100
TO FIG. 3-3
TO FIG.3-2

FIG.3


98
FIG.3-1
100
FIG.3-3
102
FIG.3-2
104

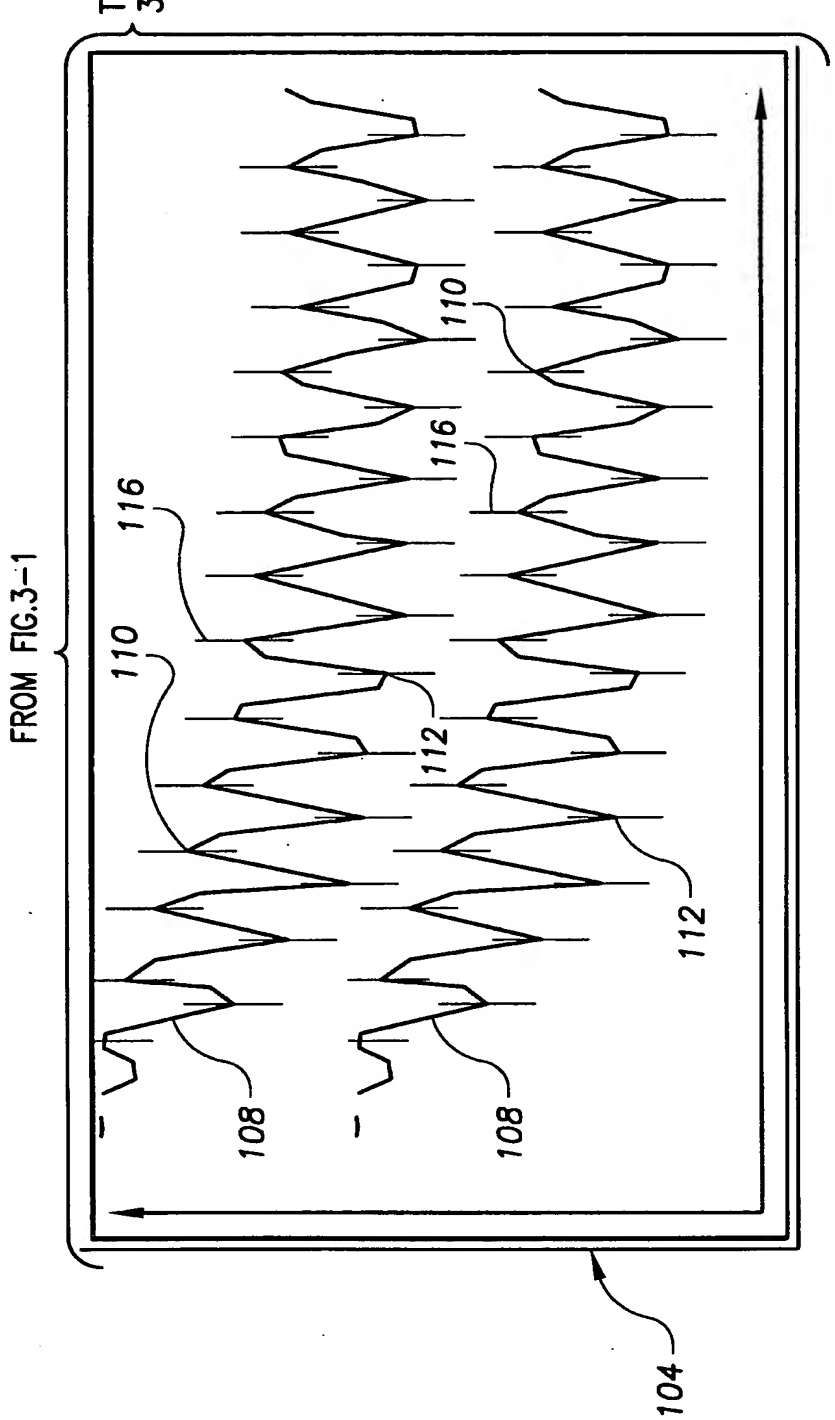
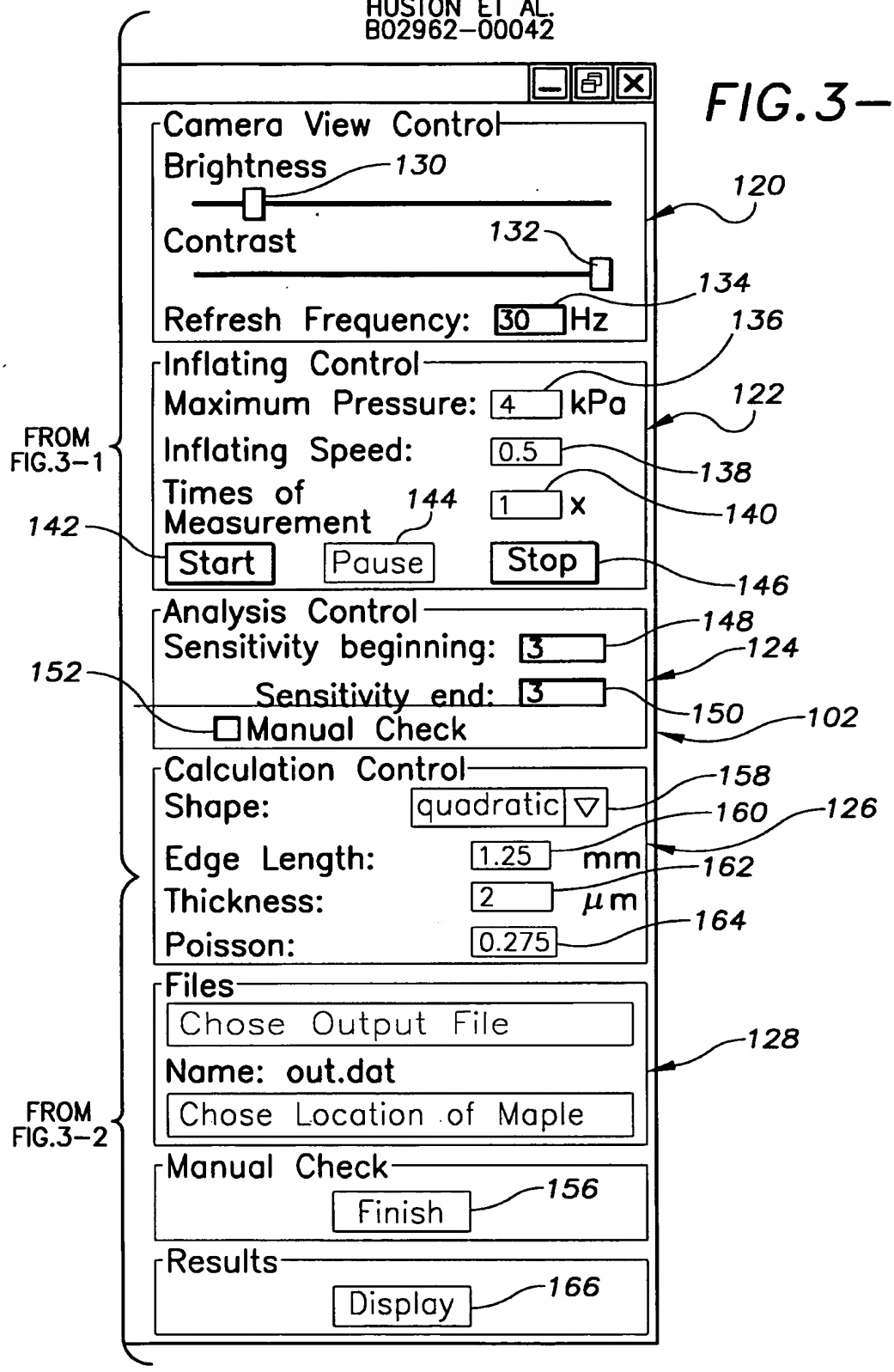


FIG.3-2

FIG.3-3



Express Mail Label No. EL 645 250 004 US

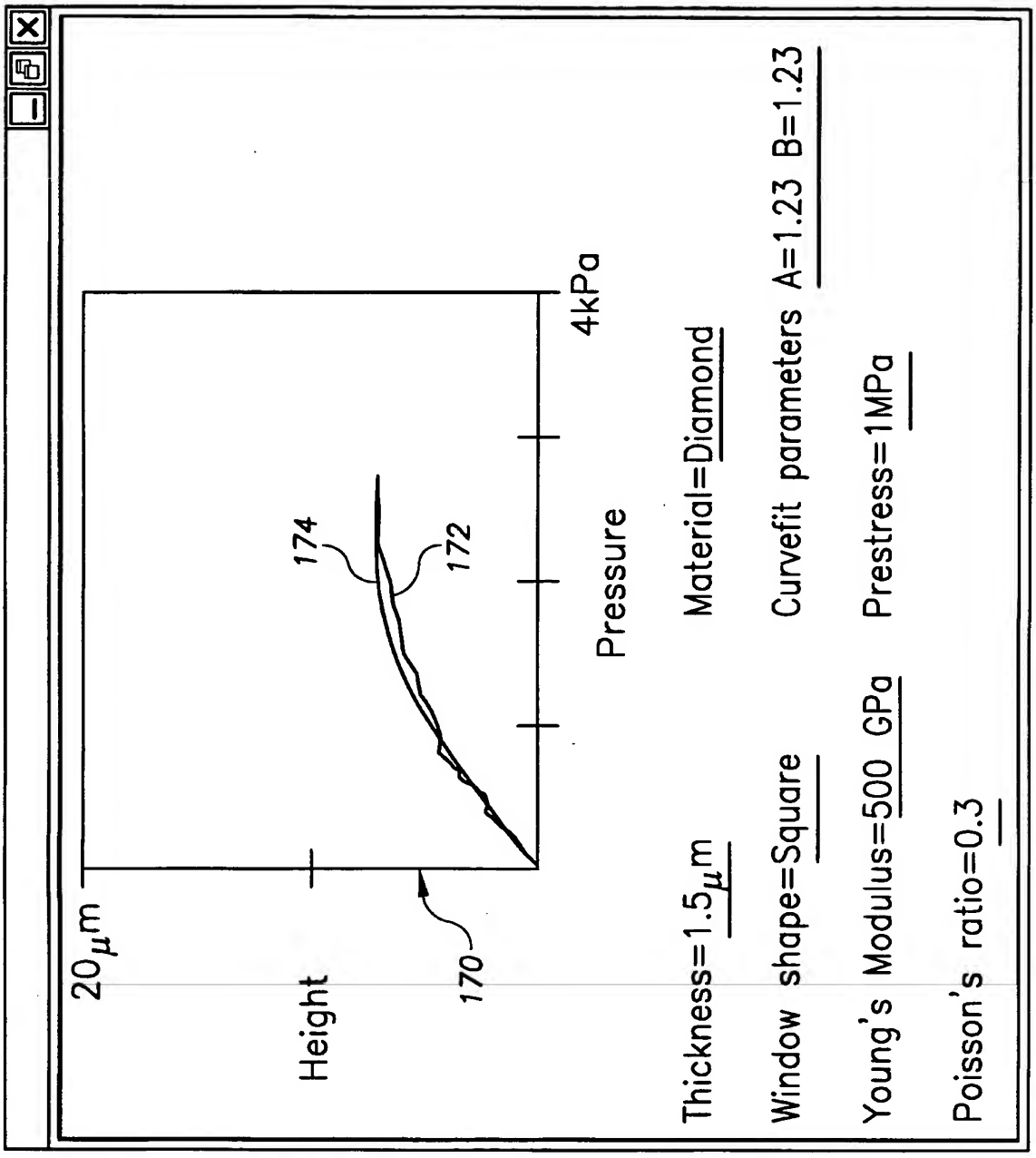

20μm
Height
170
174
172
4kPa
Pressure
Thickness=1.5μm
Material=Diamond
Window shape=Square
Curvefit parameters A=1.23 B=1.23
Young's Modulus=500 GPa
Prestress=1MPa
Poisson's ratio=0.3
168

FIG. 4

FIG.5

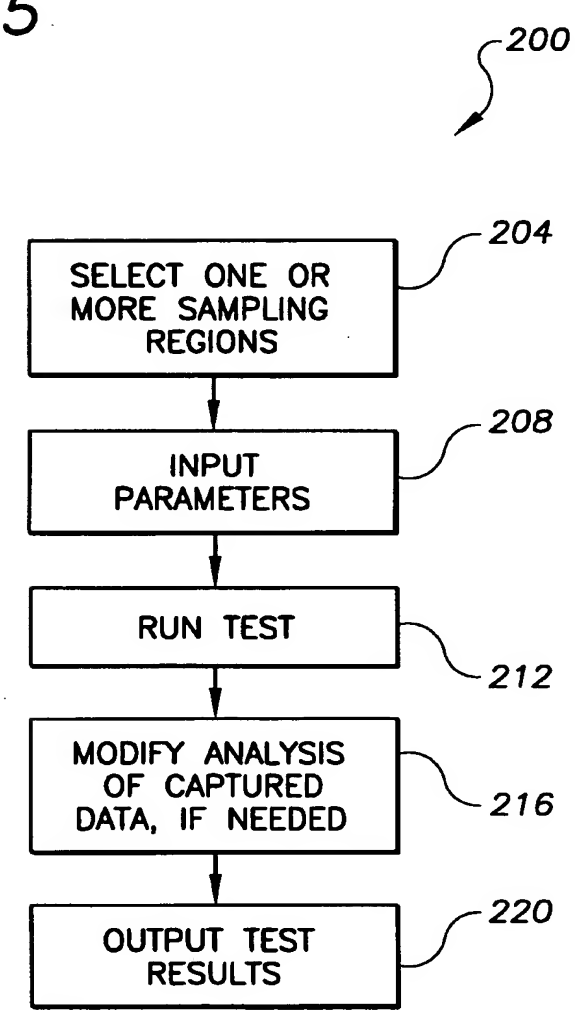

200
SELECT ONE OR MORE SAMPLING REGIONS
204
INPUT PARAMETERS
208
RUN TEST
212
MODIFY ANALYSIS OF CAPTURED DATA, IF NEEDED
216
OUTPUT TEST RESULTS
220

FIG.6-1

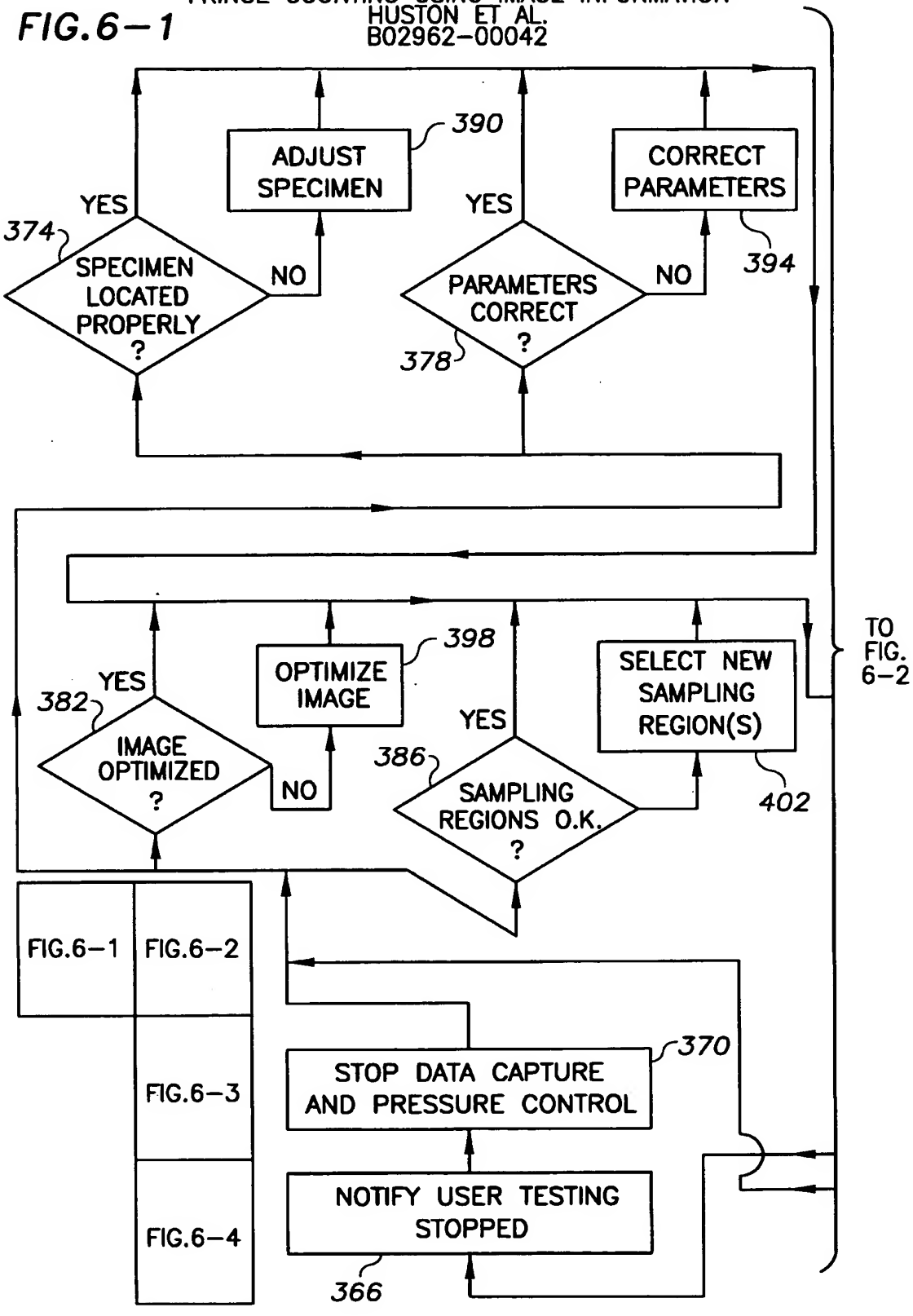
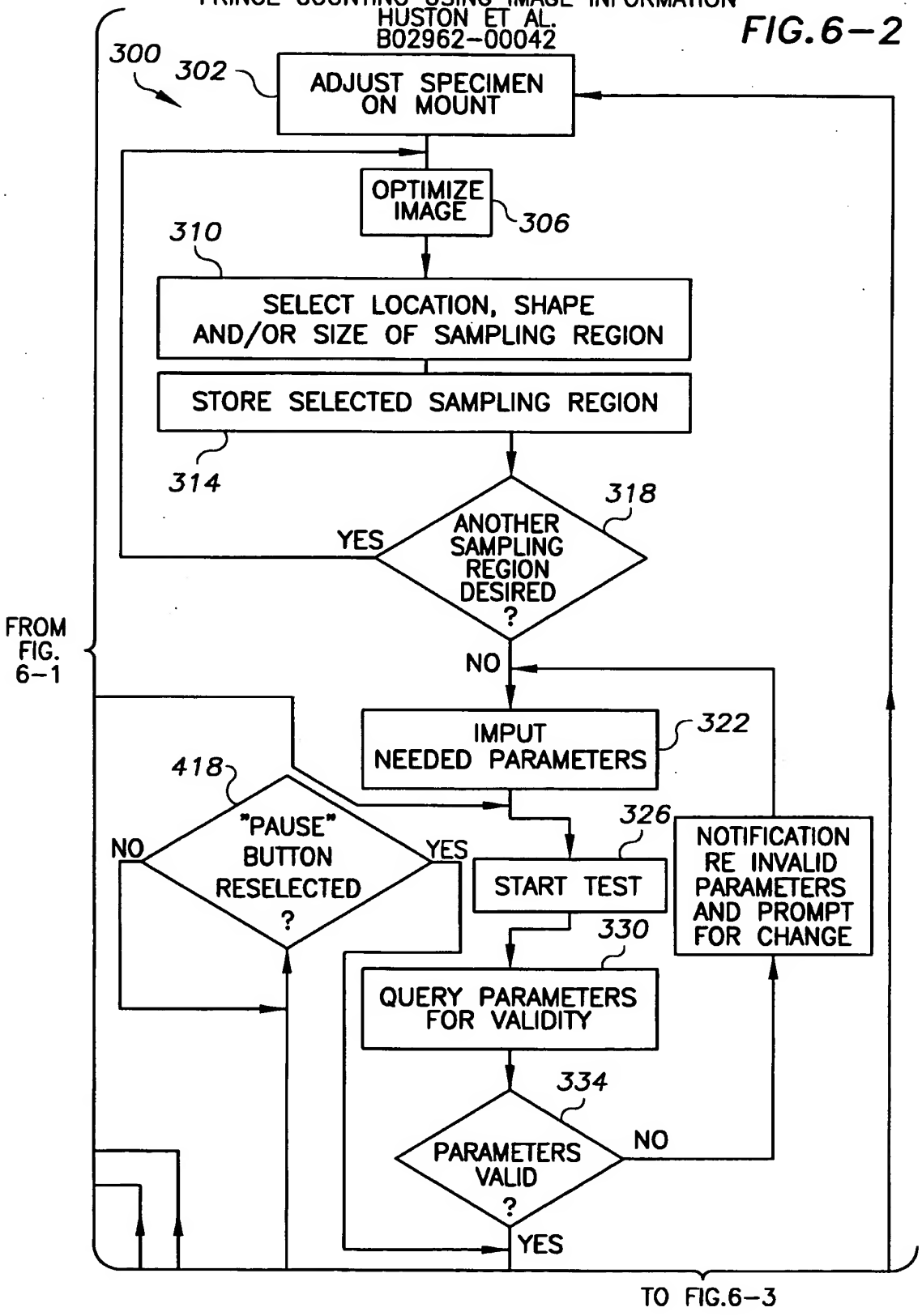
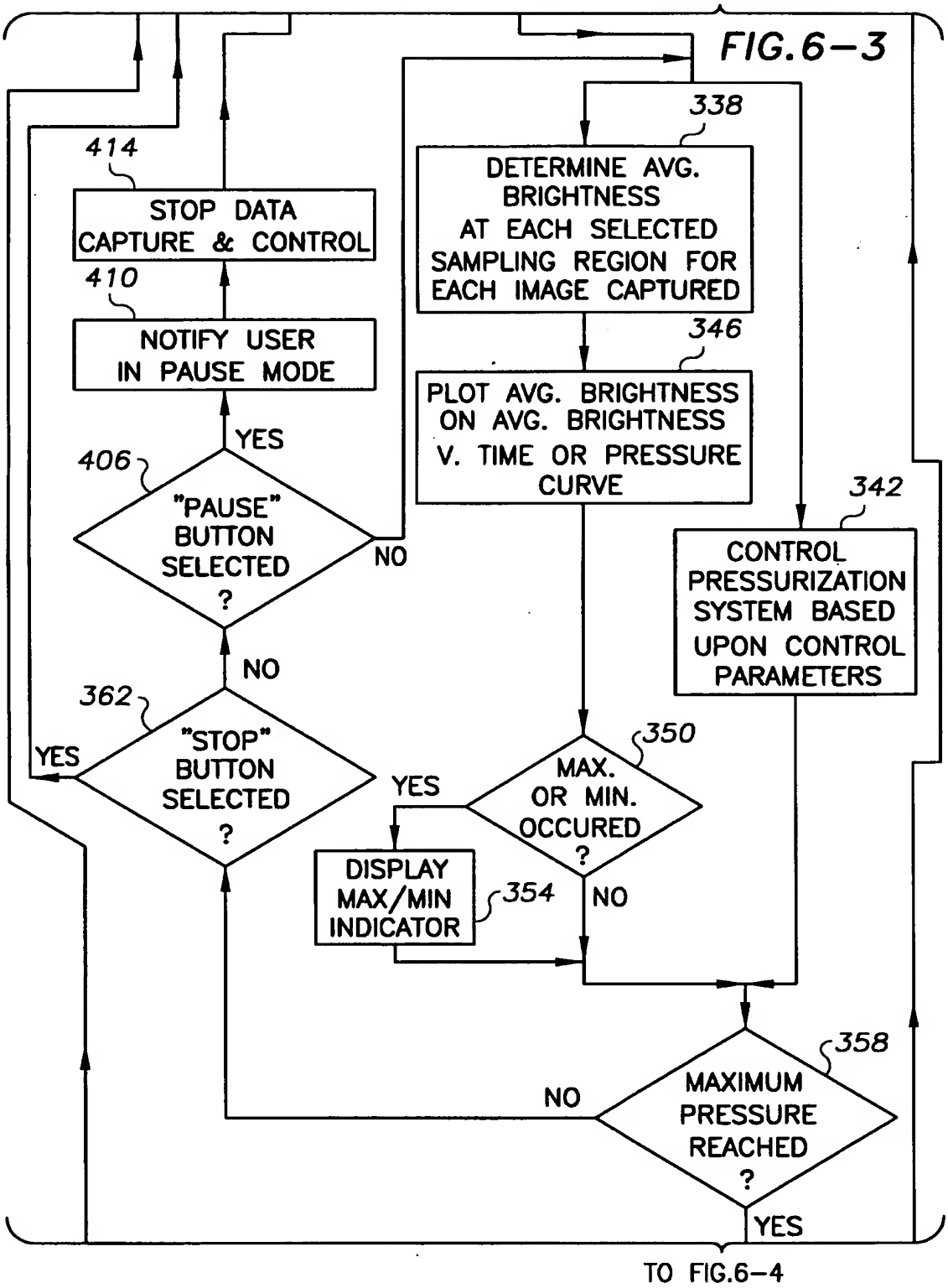

ADJUST SPECIMEN
390
CORRECT PARAMETERS
YES
374
SPECIMEN LOCATED PROPERLY ?
NO
YES
PARAMETERS CORRECT ?
NO
394
378
OPTIMIZE IMAGE
398
SELECT NEW SAMPLING REGION(S)
YES
382
IMAGE OPTIMIZED ?
NO
YES
386
SAMPLING REGIONS O.K. ?
402
TO FIG. 6-2
FIG.6-1
FIG.6-2
FIG.6-3
FIG.6-4
STOP DATA CAPTURE AND PRESSURE CONTROL
370
NOTIFY USER TESTING STOPPED
366

FIG.6-2


300
302
ADJUST SPECIMEN ON MOUNT
OPTIMIZE IMAGE
306
310
SELECT LOCATION, SHAPE AND/OR SIZE OF SAMPLING REGION
STORE SELECTED SAMPLING REGION
314
318
YES
ANOTHER SAMPLING REGION DESIRED ?
NO
FROM FIG. 6-1
IMPUT NEEDED PARAMETERS
322
418
"PAUSE" BUTTON RESELECTED ?
NO
YES
326
START TEST
NOTIFICATION RE INVALID PARAMETERS AND PROMPT FOR CHANGE
330
QUERY PARAMETERS FOR VALIDITY
334
PARAMETERS VALID ?
NO
YES
TO FIG.6-3

FROM FIG.6-2

FIG.6-3



TO FIG.6-4

FROM FIG.6-3

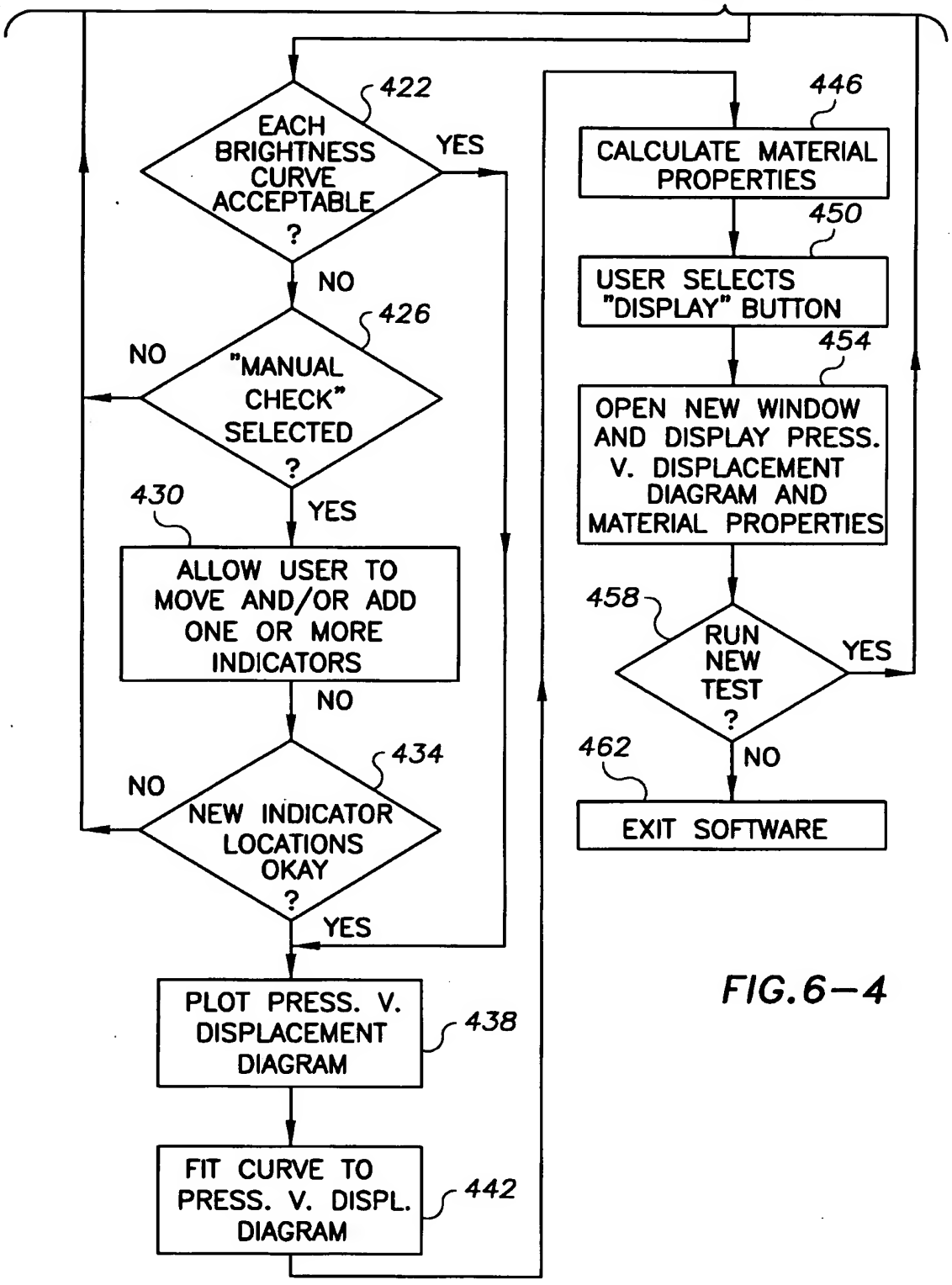


FIG.6-4

Patent Application